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COMPLETE SPECIFICATION.

Improvements in or relating to Pads or Bandages for Horses and other Animals.

We, Dr. Béla Plósz, Professor of the Veterinary Academy of Budapest, Hungary, and Alexander A. Waugh, M.R.C.V.S., of Tata, Hungary, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to a pneumatic pad or bandage for horses and other animals which perfectly answers all purposes, and is a great improvement on the shin and similar bandages as used at the present time; and whereby the sinews and parts desired are subject to an even, elastic and soft pressure. The bandages or pads used at the present time are made of wool, cloth and the like and are fastened by means of straps around the part to be bound. To this manner of fastening there are many drawbacks, the strongest pressure is exercised where the buckle or fastening of the strap is placed, while the pressure on more distant places is very much less; a double drawback results from this, inasmuch as the greatest pressure is produced on the shin bone (for at this point only can the buckle be securely fastened) while on the other hand the bandage must be drawn out of shape by such an arrangement, whereby it becomes loose and consequently comparatively useless. Then with regard to sewn bandages, in consequence of the rapid extension of the cloth they also become loose and very soon useless.

Apart from these drawbacks the old form of bandages only appear to answer the object desired. As can be seen from Figure 1 of the accompanying drawings, the sinews of the leg are situated so as to be acted upon only partly by the bandage (Figure 2), while, for instance, the sinew (*g*) (Gleichbeinband) and the hoof boneflexor *h* (hufbeinbeuger) are situated in the lateral recesses of the shin bone in such a manner that the first cannot be affected at all and the latter only to a small degree, by the bandage. As shown in Figure 2, representing the cross section of a shin bone, the pressure of the ordinary form of bandage is principally borne by the front shin bone and the rear bone while the lateral portions and the sinews lying in the recesses of the sides of these parts are not touched at all.

These drawbacks are met by the present invention by constructing a bandage consisting of an air cushion or cushions which will exercise on the required parts a soft and yielding yet firm pressure entering into and conforming to the shape of the recesses of the leg and remaining securely in place without the assistance of special means for fastening, and consequently without the use of buckles or the like. In the accompanying drawing, for example, two forms of constructions are represented, (Figures 3 and 4) in the first the bandage or pad *b* consisting of any suitable material (leather, cloth *etc.*) is provided with an air cushion *k* adapted to pass entirely or partly round the leg, while in the other construction (Figure 4) two cushions *k* are shown, which are adapted to enter the lateral recesses of the shin (Figure 5). Of course more air cushions or cushions of special shape may be provided as required for those parts which require special attention and treat-

ment. The bandage forming the object of this invention may be provided also at only one place with an air cushion for the purpose of firmly securing the bandage in place, and pressing it against the spot upon which it is desired to exercise pressure.

For fastening these bandages the simplest means may be employed, as for instance, as shown in the drawing, by lacing or buttoning or any other means, inasmuch as the bandage or pad becomes firmly fixed after forcing air into the cushions *k* through the valves *m* of known construction, these cushions acting to extend the bandages or hold it firmly in place. As regards the effects of the bandages it may be observed that the effect or pressure exercised by them when the animal is standing, in which position the sinews are acted upon to the greatest extent, is greatest; while the pressure changes with the movements of the animal when walking according as to whether the weight of the body is borne by the sinews or not. In consequence of this rapidly changing pressure and of the continued change of position of the sinews caused by the movement of the leg, the parts acted upon are subjected to a beneficial and very effective pressure by the bandages. The bandages may be formed in one or more materials. It is however advantageous to make the cushions forming the inner lining or surface of the well known balloon material *i.e.*, of strong air proof silk, although other air proof material may be employed.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A bandage or pad for horses or other animals consisting of one or more air cushions arranged on the inner side of the bandage substantially as described.
2. A pneumatic bandage or pad for horses or other animals substantially as described and illustrated in the accompanying drawings.

Dated this 12th day of April 1899.

BOULT & WADE,
Agents for the Applicants.

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Fig. 1.

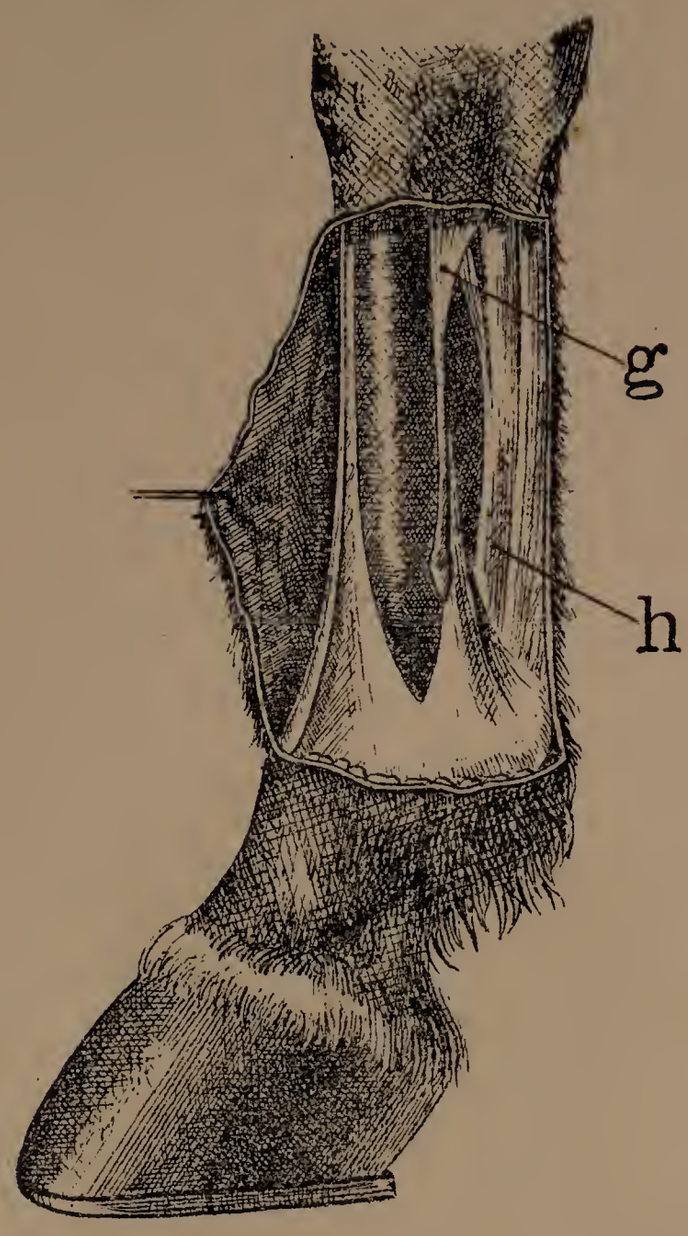


Fig. 2.

Fig. 5.

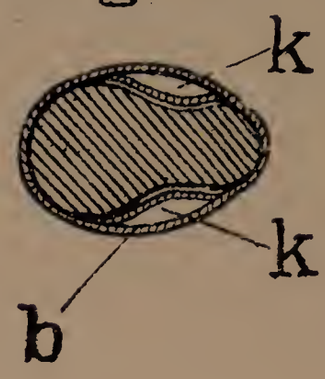


Fig. 3.

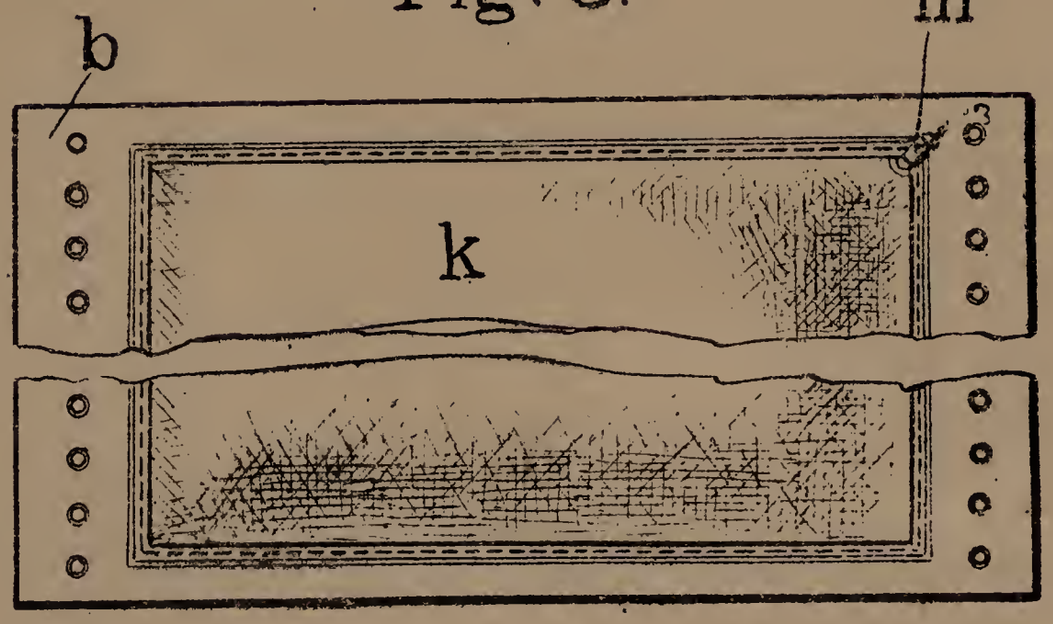
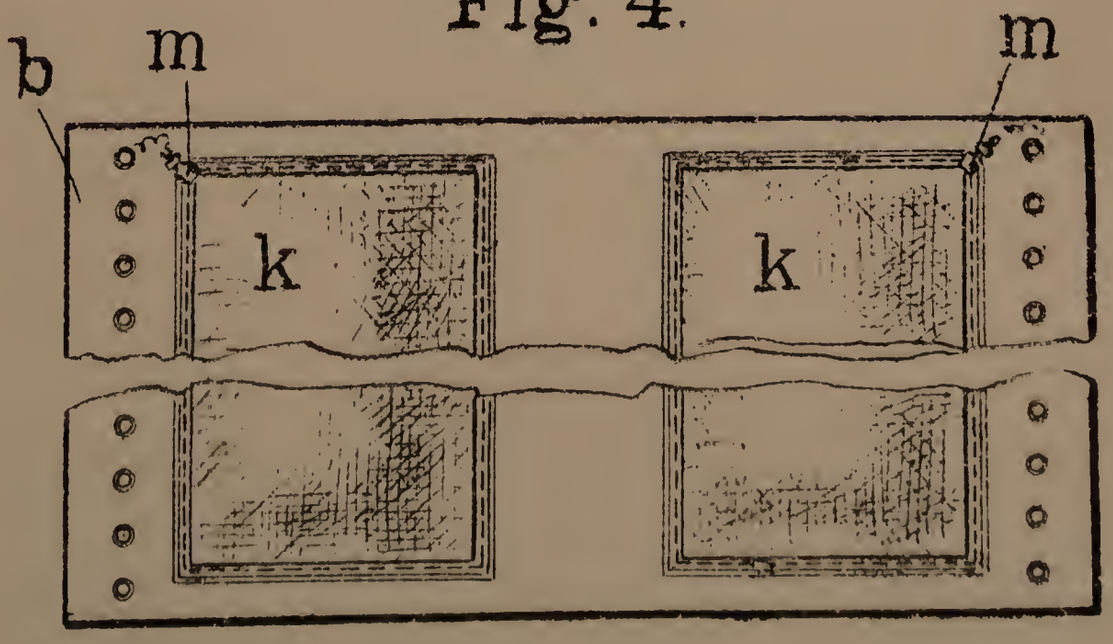


Fig. 4.



[This Drawing is a reproduction of the Original on a reduced scale.]

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